

SEQUENCE LISTING


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 Lai, Wi S.

<120> TTP-RELATED ZINC FINGER DOMAINS AND
 METHODS OF USE

<130> 14014.0349U2

<140> 10/049,586
 <141> 2002-02-12

<150> PCT/US00/22199
 <151> 2000-08-14

<150> 60/148,810
 <151> 1999-08-13

<160> 48

<170> FastSEQ for Windows Version 4.0

<210> 1
 <211> 326
 <212> PRT
 <213> Homo sapiens

<400> 1
 Met Asp Leu Thr Ala Ile Tyr Glu Ser Leu Leu Ser Leu Ser Pro Asp
 1 5 10 15
 Val Pro Val Pro Ser Asp His Gly Gly Thr Glu Ser Ser Pro Gly Trp
 20 25 30
 Gly Ser Ser Gly Pro Trp Ser Leu Ser Pro Ser Asp Ser Ser Pro Ser
 35 40 45
 Gly Val Thr Ser Arg Leu Pro Gly Arg Ser Thr Ser Leu Val Glu Gly
 50 55 60
 Arg Ser Cys Gly Trp Val Pro Pro Pro Gly Phe Ala Pro Leu Ala
 65 70 75 80
 Pro Arg Leu Gly Pro Glu Leu Ser Pro Ser Pro Thr Ser Pro Thr Ala
 85 90 95
 Thr Ser Thr Thr Pro Ser Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 100 105 110
 Ser Glu Ser Gly Arg Cys Arg Tyr Gly Ala Lys Cys Gln Phe Ala His
 115 120 125
 Gly Leu Gly Glu Leu Arg Gln Ala Asn Arg His Pro Lys Tyr Lys Thr
 130 135 140
 Glu Leu Cys His Lys Phe Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser
 145 150 155 160
 Arg Cys His Phe Ile His Asn Pro Ser Glu Asp Leu Ala Ala Pro Gly
 165 170 175
 His Pro Pro Val Leu Arg Gln Ser Ile Ser Phe Ser Gly Leu Pro Ser
 180 185 190
 Gly Arg Arg Thr Ser Pro Pro Pro Gly Leu Ala Gly Pro Ser Leu
 195 200 205
 Ser Ser Ser Ser Phe Ser Pro Ser Ser Ser Pro Pro Pro Pro Gly Asp
 210 215 220
 Leu Pro Leu Ser Pro Ser Ala Phe Ser Ala Ala Pro Gly Thr Pro Leu
 225 230 235 240

Ala Arg Arg Asp Pro Thr Pro Val Cys Cys Pro Ser Cys Arg Arg Ala
 245 250 255
 Thr Pro Ile Ser Val Trp Gly Pro Leu Gly Gly Leu Val Arg Thr Pro
 260 265 270
 Ser Val Gln Ser Leu Gly Ser Asp Pro Asp Glu Tyr Ala Ser Ser Gly
 275 280 285
 Ser Ser Leu Gly Gly Ser Asp Ser Pro Val Phe Glu Ala Gly Val Phe
 290 295 300
 Ala Pro Pro Gln Pro Val Ala Ala Pro Arg Arg Leu Pro Ile Phe Asn
 305 310 315 320
 Arg Ile Ser Val Ser Glu
 325

<210> 2
 <211> 338
 <212> PRT
 <213> Homo sapiens

<400> 2
 Met Thr Thr Thr Leu Val Ser Ala Thr Ile Phe Asp Leu Ser Glu Val
 1 5 10 15
 Leu Cys Lys Gly Asn Lys Met Leu Asn Tyr Ser Ala Pro Ser Ala Gly
 20 25 30
 Gly Cys Leu Leu Asp Arg Lys Ala Val Gly Thr Pro Ala Gly Gly Gly
 35 40 45
 Phe Pro Arg Arg His Ser Val Thr Leu Pro Ser Ser Lys Phe Arg Gln
 50 55 60
 Asn Gln Leu Leu Ser Ser Leu Lys Gly Glu Pro Ala Pro Ala Leu Ser
 65 70 75 80
 Ser Arg Asp Ser Arg Phe Arg Asp Arg Ser Phe Ser Glu Gly Gly Glu
 85 90 95
 Arg Leu Leu Pro Thr Gln Lys Gln Pro Gly Gly Gln Val Asn Ser
 100 105 110
 Ser Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala
 115 120 125
 Cys Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu
 130 135 140
 Arg Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr
 145 150 155 160
 Phe His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile
 165 170 175
 His Asn Ala Glu Glu Arg Arg Ala Leu Ala Gly Ala Arg Asp Leu Ser
 180 185 190
 Ala Asp Arg Pro Arg Leu Gln His Ser Phe Ser Phe Ala Gly Phe Pro
 195 200 205
 Ser Ala Ala Ala Thr Ala Ala Ala Thr Gly Leu Leu Asp Ser Pro Thr
 210 215 220
 Ser Ile Thr Pro Pro Pro Ile Leu Ser Ala Asp Asp Leu Leu Gly Ser
 225 230 235 240
 Pro Thr Leu Pro Asp Gly Thr Asn Asn Pro Phe Ala Phe Ser Ser Gln
 245 250 255
 Glu Leu Ala Ser Leu Phe Ala Pro Ser Met Gly Leu Pro Gly Gly Gly
 260 265 270
 Ser Pro Thr Thr Phe Leu Phe Arg Pro Met Ser Glu Ser Pro His Met
 275 280 285
 Phe Asp Ser Pro Pro Ser Pro Gln Asp Ser Leu Ser Asp Gln Glu Gly
 290 295 300
 Tyr Leu Ser Ser Ser Ser Ser His Ser Gly Ser Asp Ser Pro Thr
 305 310 315 320
 Leu Asp Asn Ser Arg Arg Leu Pro Ile Phe Ser Arg Leu Ser Ile Ser
 325 330 335

Asp Asp

<210> 3
 <211> 492
 <212> PRT
 <213> Homo sapiens

<400> 3
 Met Ser Thr Thr Leu Leu Ser Ala Phe Tyr Asp Val Asp Phe Leu Cys
 1 5 10 15
 Lys Thr Glu Lys Ser Leu Ala Asn Leu Asn Leu Asn Asn Met Leu Asp
 20 25 30
 Lys Lys Ala Val Gly Thr Pro Val Ala Ala Ala Pro Ser Ser Gly Phe
 35 40 45
 Ala Pro Gly Phe Leu Arg Arg His Ser Ala Ser Asn Leu His Ala Leu
 50 55 60
 Ala His Pro Ala Pro Ser Pro Gly Ser Cys Ser Pro Lys Phe Pro Gly
 65 70 75 80
 Ala Ala Asn Gly Ser Ser Cys Gly Ser Ala Ala Ala Gly Gly Pro Thr
 85 90 95
 Ser Tyr Gly Thr Leu Lys Glu Pro Ser Gly Gly Gly Thr Ala Leu
 100 105 110
 Leu Asn Lys Glu Asn Lys Phe Arg Asp Arg Ser Phe Ser Glu Asn Gly
 115 120 125
 Asp Arg Ser Gln His Leu Leu His Leu Gln Gln Gln Gln Lys Gly Gly
 130 135 140
 Gly Gly Ser Gln Ile Asn Ser Thr Arg Tyr Lys Thr Glu Leu Cys Arg
 145 150 155 160
 Pro Phe Glu Glu Ser Gly Thr Cys Lys Tyr Gly Glu Lys Cys Gln Phe
 165 170 175
 Ala His Gly Phe His Glu Leu Arg Ser Leu Thr Arg His Pro Lys Tyr
 180 185 190
 Lys Thr Glu Leu Cys Arg Thr Phe His Thr Ile Gly Phe Cys Pro Tyr
 195 200 205
 Gly Pro Arg Cys His Phe Ile His Asn Ala Asp Glu Arg Arg Pro Ala
 210 215 220
 Pro Ser Gly Gly Ala Ser Gly Asp Leu Arg Ala Phe Gly Thr Arg Asp
 225 230 235 240
 Ala Leu His Leu Gly Phe Pro Arg Glu Pro Arg Pro Lys Leu His His
 245 250 255
 Ser Leu Ser Phe Ser Gly Phe Pro Ser Gly His His Gln Pro Pro Gly
 260 265 270
 Gly Leu Glu Ser Pro Leu Leu Leu Asp Ser Pro Thr Ser Arg Thr Pro
 275 280 285
 Pro Pro Pro Ser Cys Ser Ser Ala Ser Ser Cys Ser Ser Ser Ala Ser
 290 295 300
 Ser Cys Ser Ser Ala Ser Ala Ala Ser Thr Pro Ser Gly Thr Pro Thr
 305 310 315 320
 Cys Cys Ala Ser Ala Ala Ala Leu Arg Leu Leu Tyr Gly Thr Gly
 325 330 335
 Gly Ala Glu Asp Leu Leu Ala Pro Gly Ala Pro Cys Ala Ala Cys Ser
 340 345 350
 Ser Ala Ser Cys Ala Asn Asn Ala Phe Ala Phe Gly Pro Glu Leu Ser
 355 360 365
 Ser Leu Ile Thr Pro Leu Ala Ile Gln Thr His Asn Phe Ala Ala Val
 370 375 380
 Ala Ala Ala Ala Tyr Tyr Arg Ser Gln Gln Gln Gln Gln Gln Gly
 385 390 395 400
 Leu Ala Pro Pro Ala Gln Pro Pro Ala Pro Pro Ser Ala Thr Leu Pro
 405 410 415

Ala Gly Ala Ala Ala Pro Pro Ser Pro Pro Phe Ser Phe Gln Leu Pro
 420 425 430
 Arg Arg Leu Ser Asp Ser Pro Val Phe Asp Ala Pro Pro Ser Pro Pro
 435 440 445
 Asp Ser Leu Ser Asp Arg Asp Ser Tyr Leu Ser Gly Ser Leu Ser Ser
 450 455 460
 Gly Ser Leu Ser Gly Ser Glu Ser Pro Ser Leu Asp Pro Gly Arg Arg
 465 470 475 480
 Leu Pro Ile Phe Ser Arg Leu Ser Ile Ser Asp Asp
 485 490

<210> 4
 <211> 276
 <212> PRT
 <213> Xenopus laevis

<400> 4

Met Glu Ile Ser Asn Asp Ser Leu Asp Leu Phe Ser Ser Phe Phe Pro
 1 5 10 15
 Gln Leu Ser Pro Pro Ala Asp Pro Glu Thr Pro Leu Leu Pro Ser Phe
 20 25 30
 Ser Ala Pro Pro Lys His Leu Ser Leu Ser Ser Leu Arg Tyr Lys Thr
 35 40 45
 Glu Leu Cys Ser Arg Tyr Ala Glu Ser Gly Phe Cys Ala Tyr Arg Asn
 50 55 60
 Arg Cys Gln Phe Ala His Gly Leu Ser Glu Leu Arg Pro Pro Val Gln
 65 70 75 80
 His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Ser Phe His Val Leu Gly
 85 90 95
 Thr Cys Asn Tyr Gly Leu Arg Cys Leu Phe Ile His Ser Pro Gln Glu
 100 105 110
 Arg Arg Glu Pro Pro Val Leu Pro Asp Asn Leu Ser Leu Pro Pro Arg
 115 120 125
 Arg Tyr Gly Gly Pro Tyr Arg Glu Arg Cys Arg Leu Trp Ser Ala Pro
 130 135 140
 Gly Gly Cys Pro Tyr Gly Ala Arg Cys His Phe Gln His Pro Lys Ser
 145 150 155 160
 Ala Arg Glu Thr Cys Arg His Phe Ala Ala Leu Gly Asp Cys Pro Tyr
 165 170 175
 Gly Ala Cys Cys His Phe Ser His Ser Pro Pro Leu Asp Arg Trp Gly
 180 185 190
 Ser Gly Thr Lys Asn Ser Ser Gly Ser Leu Ser Pro Ser Asp Pro Asp
 195 200 205
 Ser Asp Pro Asp Thr Pro Val Leu Ser Glu Ser Pro Ala Asn Asn Ala
 210 215 220
 Phe Ser Phe Ser Ser Leu Leu Pro Leu Ala Leu Arg Leu Gln Ile
 225 230 235 240
 Leu Gly Asp Asp Asp Leu Pro Thr Ala Ser Asp Pro Leu Pro Gly Asp
 245 250 255
 Asp Thr Asp Leu Leu Pro Gly Asp Glu Glu Ile Ala Gln Gly Leu Leu
 260 265 270
 Ser Val Leu Gly
 275

<210> 5
 <211> 327
 <212> PRT
 <213> Cyprinus carpio

<400> 5

Met Phe Glu Thr Ser Thr Asp Asn Leu Phe Leu Phe Pro Thr Glu Gly
 1 5 10 15
 Leu Asn Glu Ala Phe Phe Pro Glu Glu Gly Leu Ala Ser Gly Ser Leu
 20 25 30
 Ser Leu Ala Lys Ala Leu Leu Pro Leu Val Glu Ser Pro Ser Pro Pro
 35 40 45
 Met Thr Pro Trp Leu Cys Ser Thr Arg Tyr Lys Thr Glu Leu Cys Ser
 50 55 60
 Arg Tyr Ala Glu Thr Gly Thr Cys Lys Tyr Ala Glu Arg Cys Gln Phe
 65 70 75 80
 Ala His Gly Leu His Asp Leu His Val Pro Ser Arg His Pro Lys Tyr
 85 90 95
 Lys Thr Glu Leu Cys Arg Thr Tyr His Thr Ala Gly Tyr Cys Val Tyr
 100 105 110
 Gly Thr Arg Cys Leu Phe Val His Asn Leu Lys Glu Gln Arg Pro Val
 115 120 125
 Arg Gln Arg Cys Arg Asn Val Pro Cys Arg Thr Phe Arg Ala Phe Gly
 130 135 140
 Val Cys Pro Phe Gly Thr Arg Cys His Phe Leu His Val Glu Gly Gly
 145 150 155 160
 Ser Glu Ser Asp Gly Gly Glu Glu Gln Thr Cys Gln Pro Met Ser
 165 170 175
 Gln Ser Gln Glu Trp Lys Pro Arg Gly Ala Leu Cys Arg Thr Phe Ser
 180 185 190
 Ala Phe Gly Phe Cys Leu Tyr Gly Thr Arg Cys Arg Phe Gln His Gly
 195 200 205
 Leu Pro Asn Ser Ile Lys Gly Val Asn Ser Thr His Thr Ser Trp Pro
 210 215 220
 His Gln Met Thr Asn Arg Gly Ser Leu Ser Pro Val Ser Asp Ala Cys
 225 230 235 240
 Ser Ser Gln Ser Pro Pro Ser Ser Val Pro Ser Val Cys Val Gly Phe
 245 250 255
 Ala Val Tyr Pro Glu Gly Ser Gly Pro Val Thr Pro Pro Ser Val Glu
 260 265 270
 Ala Val Ala Asn Asn Ala Phe Thr Phe Ser Ser Gln His Leu Asn Asp
 275 280 285
 Leu Leu Leu Pro Leu Ala Leu Arg Leu Gln Gln Leu Glu Asn Val Thr
 290 295 300
 Asn Ala Gly Pro Gln Asp Ala Val Asp Lys Pro Leu Leu Ser Leu
 305 310 315 320
 Trp Gln Asp Asp Pro Arg Ser
 325

<210> 6

<211> 319
 <212> PRT
 <213> Danio rerio

<400> 6

Met Phe Glu Thr Ser Gln Asp Asp Leu Phe Leu Phe Pro Thr Glu Gly
 1 5 10 15
 Leu Asn Glu Ala Phe Phe Pro Glu Glu Gly Leu Gly Gly Gly Gly Gly
 20 25 30
 Gly Leu Ser Leu Ala Glu Ala Leu Leu Pro Leu Val Glu Ser Pro Ser
 35 40 45
 Pro Pro Met Thr Pro Trp Leu Cys Ser Thr Arg Tyr Lys Thr Glu Leu
 50 55 60
 Cys Ser Arg Tyr Ala Glu Thr Gly Thr Cys Lys Tyr Ala Glu Arg Cys
 65 70 75 80

Gln Phe Ala His Gly Leu His Asp Leu His Val Pro Ser Arg His Pro
 85 90 95
 Lys Tyr Lys Thr Glu Leu Cys Arg Thr Tyr His Thr Ala Gly Tyr Cys
 100 105 110
 Val Tyr Gly Thr Arg Cys Leu Phe Val His Asn Leu Lys Glu Gln Arg
 115 120 125
 Pro Ile Arg Pro Arg Arg Asn Val Pro Cys Arg Thr Phe Arg Ala
 130 135 140
 Phe Gly Val Cys Pro Phe Gly Asn Arg Cys His Phe Leu His Val Glu
 145 150 155 160
 Gly Gly Ser Glu Ser Asp Gly Ala Glu Glu Glu Gln Thr Trp Gln Pro
 165 170 175
 Pro Ser Gln Ser Gln Glu Trp Lys Pro Arg Gly Ala Leu Cys Arg Thr
 180 185 190
 Phe Ser Ala Phe Gly Phe Cys Leu Tyr Gly Thr Arg Cys Arg Phe Gln
 195 200 205
 His Gly Leu Pro Asn Thr Ile Lys Gly His Asn Ala Asn His Thr Ser
 210 215 220
 Trp Pro Gln Gln Met Thr Asn Gly Gly Ser Ile Ser Pro Ile Ser Asp
 225 230 235 240
 Thr Cys Thr Ser Pro Ser Pro Pro Ser Ser Pro Thr Ser Ala Leu
 245 250 255
 Pro Ser Pro Val Tyr Pro Asp Ser Ser Gly Pro Ile Thr Pro Pro Ser
 260 265 270
 Val Glu Ala Val Ala Asn Asn Ala Phe Thr Phe Ser Ser Gln His Leu
 275 280 285
 Asn Asp Leu Leu Leu Pro Leu Ala Leu Arg Leu Gln Gln Leu Glu Lys
 290 295 300
 Ala Ala Ser Ala Gly Pro Gln Asp Val Leu Asp Lys Pro Leu Leu
 305 310 315

<210> 7
 <211> 64
 <212> PRT
 <213> Rattus norvegicus

<400> 7
 Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala Cys
 1 5 10 15
 Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 8
 <211> 64
 <212> PRT
 <213> Homo sapiens

<400> 8
 Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala Cys
 1 5 10 15
 Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu Arg
 20 25 30
 Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 35 40 45
 His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
 50 55 60

<210> 9
<211> 64
<212> PRT
<213> *Mus musculus*

<400> 9
Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala Cys
1 5 10 15
Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu Arg
20 25 30
Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
35 40 45
His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
50 55 60

<210> 10
<211> 64
<212> PRT
<213> *Xenopus laevis*

<400> 10
Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ser Cys
1 5 10 15
Lys Tyr Gly Asp Lys Cys Gln Phe Ala His Gly Ile His Glu Leu Arg
20 25 30
Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
35 40 45
His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
50 55 60

<210> 11
<211> 64
<212> PRT
<213> *Homo sapiens*

<400> 11
Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Ser Gly Thr Cys
1 5 10 15
Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
20 25 30
Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
35 40 45
His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
50 55 60

<210> 12
<211> 64
<212> PRT
<213> *Mus musculus*

<400> 12
Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Ser Gly Thr Cys
1 5 10 15
Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
20 25 30
Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
35 40 45
His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
50 55 60

<210> 13
<211> 64
<212> PRT
<213> Xenopus laevis

<400> 13
Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Asn Gly Ala Cys
1 5 10 15
Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
20 25 30
Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
35 40 45
His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
50 55 60

<210> 14
<211> 64
<212> PRT
<213> Xenopus laevis

<400> 14
Arg Tyr Lys Thr Glu Leu Cys Arg Pro Phe Glu Glu Ser Gly Ala Cys
1 5 10 15
Lys Tyr Gly Glu Lys Cys Gln Phe Ala His Gly Phe His Glu Leu Arg
20 25 30
Ser Leu Thr Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Phe
35 40 45
His Thr Ile Gly Phe Cys Pro Tyr Gly Pro Arg Cys His Phe Ile His
50 55 60

<210> 15
<211> 64
<212> PRT
<213> Homo sapiens

<400> 15
Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe Ser Glu Ser Gly Arg Cys
1 5 10 15
Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Leu Gly Glu Leu Arg
20 25 30
Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
35 40 45
Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
50 55 60

<210> 16
<211> 64
<212> PRT
<213> Bos taurus

<400> 16
Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe Ser Glu Ser Gly Arg Cys
1 5 10 15
Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Leu Gly Glu Leu Arg
20 25 30
Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
35 40 45
Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
50 55 60

<210> 17
<211> 64
<212> PRT
<213> *Mus musculus*

<400> 17
Arg Tyr Lys Thr Glu Leu Cys Arg Thr Tyr Ser Glu Ser Gly Arg Cys
1 5 10 15
Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Leu Gly Glu Leu Arg
20 25 30
Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
35 40 45
Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
50 55 60

<210> 18
<211> 64
<212> PRT
<213> *Rattus norvegicus*

<400> 18
Arg Tyr Lys Thr Glu Leu Cys Arg Thr Tyr Ser Glu Ser Gly Arg Cys
1 5 10 15
Arg Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Pro Gly Glu Leu Arg
20 25 30
Gln Ala Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
35 40 45
Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser Arg Cys His Phe Ile His
50 55 60

<210> 19
<211> 64
<212> PRT
<213> *Xenopus laevis*

<400> 19
Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe Ser Glu Thr Gly Thr Cys
1 5 10 15
Lys Tyr Gly Ala Lys Cys Gln Phe Ala His Gly Lys Ile Glu Leu Arg
20 25 30
Glu Pro Asn Arg His Pro Lys Tyr Lys Thr Glu Leu Cys His Lys Phe
35 40 45
Tyr Leu Tyr Gly Glu Cys Pro Tyr Gly Ser Arg Cys Asn Phe Ile His
50 55 60

<210> 20
<211> 64
<212> PRT
<213> *Cyprinus carpio*

<400> 20
Arg Tyr Lys Thr Glu Leu Cys Ser Arg Tyr Ala Glu Thr Gly Thr Cys
1 5 10 15
Lys Tyr Ala Glu Arg Cys Gln Phe Ala His Gly Leu His Asp Leu His
20 25 30
Val Pro Ser Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Tyr
35 40 45
His Thr Ala Gly Tyr Cys Val Tyr Gly Thr Arg Cys Leu Phe Val His
50 55 60

<210> 21
 <211> 64
 <212> PRT
 <213> *Danio rerio*

<400> 21
 Arg Tyr Lys Thr Glu Leu Cys Ser Arg Tyr Ala Glu Thr Gly Thr Cys
 1 5 10 15
 Lys Tyr Ala Glu Arg Cys Gln Phe Ala His Gly Leu His Asp Leu His
 20 25 30
 Val Pro Ser Arg His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Thr Tyr
 35 40 45
 His Asn Ala Gly Tyr Cys Val Tyr Val Thr Arg Cys Leu Phe Val His
 50 55 60

<210> 22
 <211> 64
 <212> PRT
 <213> *Xenopus laevis*

<400> 22
 Arg Tyr Lys Thr Glu Leu Cys Ser Arg Tyr Ala Glu Ser Gly Phe Cys
 1 5 10 15
 Ala Tyr Arg Asn Arg Cys Gln Phe Ala His Gly Leu Ser Glu Leu Arg
 20 25 30
 Pro Pro Val Gln His Pro Lys Tyr Lys Thr Glu Leu Cys Arg Ser Phe
 35 40 45
 His Val Leu Gly Thr Cys Asn Tyr Gly Leu Arg Cys Leu Phe Ile His
 50 55 60

<210> 23
 <211> 77
 <212> PRT
 <213> *Homo sapiens*

<400> 23
 Thr Ser Thr Thr Pro Ser Arg Tyr Lys Thr Glu Leu Cys Arg Thr Phe
 1 5 10 15
 Ser Glu Ser Gly Arg Cys Arg Tyr Gly Ala Lys Cys Gln Phe Ala His
 20 25 30
 Gly Leu Gly Glu Leu Arg Gln Ala Asn Arg His Pro Lys Tyr Lys Thr
 35 40 45
 Glu Leu Cys His Lys Phe Tyr Leu Gln Gly Arg Cys Pro Tyr Gly Ser
 50 55 60
 Arg Cys His Phe Ile His Asn Pro Ser Glu Asp Leu Ala
 65 70 75

<210> 24
 <211> 241
 <212> RNA
 <213> *Mus musculus*

<400> 24
 gaauucacug gagccucgaa uguccauucc ugaguucugc aaagggagag uggucagguu 60
 gccucugucu cagaaugagg cuggauaaga ucucaggccu uccuaccuuc agaccuuucc 120
 agacucuucc cugaggugca augcacagcc uuccucacag agccagcccc ccucuauuuua 180
 uauuugcacu uauuauuuau uauuuauuuua uuauuuauuu auuugcuaau gaauguauuu 240
 a 241

<210> 25
<211> 70
<212> RNA
<213> *Mus musculus*

<400> 25
cucuauuuau auuugcacuu auuauuuauu auuuaauuuau uauuuauuuua uuugcuuaug 60
aaugauuuua 70

<210> 26
<211> 6
<212> PRT
<213> *Homo sapiens*

<400> 26
Arg Tyr Lys Thr Glu Leu
1 5

<210> 27
<211> 6
<212> PRT
<213> *Homo sapiens*

<220>
<221> VARIANT
<222> 1
<223> Xaa can be Arg or Lys

<400> 27
Xaa Tyr Lys Thr Glu Leu
1 5

<210> 28
<211> 27
<212> DNA
<213> *Mus Musculus*

<400> 28
gtcgacactc agagagaaag gctaagg 27

<210> 29
<211> 23
<212> DNA
<213> *Mus musculus*

<400> 29
cattcaaagg ggatatcagt cag 23

<210> 30
<211> 27
<212> DNA
<213> *Homo sapiens*

<400> 30
gtggcttcta gatgcattggg tggcattc 27

<210> 31
<211> 29
<212> DNA

<213> Homo sapiens	
<400> 31	
gaaggacacc tctagagaca aatgatgc	29
<210> 32	
<211> 23	
<212> DNA	
<213> Mus musculus	
<400> 32	
cttccgaat tcactggagc ctc	23
<210> 33	
<211> 29	
<212> DNA	
<213> Mus musculus	
<400> 33	
tagatctaga agcgatcttt atttctctc	29
<210> 34	
<211> 20	
<212> DNA	
<213> Mus musculus	
<400> 34	
gataagatct caggcattcc	20
<210> 35	
<211> 27	
<212> DNA	
<213> Mus musculus	
<400> 35	
gccttctaga taaatacatt cataaagc	27
<210> 36	
<211> 27	
<212> DNA	
<213> Homo sapiens	
<400> 36	
gtggcttcta gatgcatggg tggcatc	27
<210> 37	
<211> 29	
<212> DNA	
<213> Homo sapiens	
<400> 37	
gaaggacacc tctagagaca aatgatgc	29
<210> 38	
<211> 30	
<212> DNA	
<213> Mus musculus	
<400> 38	
ctgatctaga agtgcaaata taaatagagg	30

<210> 39
<211> 27
<212> DNA
<213> *Mus musculus*

<400> 39
gactggatcc tctatttata tttgcac

27

<210> 40
<211> 6
<212> PRT
<213> *Homo sapiens*

<400> 40
Lys Tyr Lys Thr Glu Leu
1 5

<210> 41
<211> 24
<212> RNA
<213> *Mus musculus*

<400> 41
uuauuuauuu auuauuuauuu uaauu

24

<210> 42
<211> 7
<212> PRT
<213> *Homo sapiens*

<400> 42
Arg Tyr Lys Thr Glu Leu Cys
1 5

<210> 43
<211> 6
<212> PRT
<213> *Homo sapiens*

<400> 43
Cys Gln Phe Ala His Gly
1 5

<210> 44
<211> 9
<212> PRT
<213> *Homo sapiens*

<400> 44
His Pro Lys Tyr Lys Thr Glu Leu Cys
1 5

<210> 45
<211> 24
<212> RNA
<213> *Artificial Sequence*

<220>
<223> *Description of Artificial Sequence; note = synthetic construct*

<400> 45

uuguuuuguuu guuguuuuguuu uuuuu

24

<210> 46
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; note =
synthetic construct

<220>
<221> VARIANT
<222> 2-9, 11, 13, 16, 19, 21
<223> Xaa = any amino acid

<220>
<221> VARIANT
<222> 17
<223> Xaa can be Arg or Lys

<400> 46
Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa Cys Xaa Tyr Gly Xaa
1 5 10 15
Xaa Cys Xaa Phe Xaa His
20

<210> 47
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; note =
synthetic construct

<220>
<221> VARIANT
<222> 2-9, 11-15, 17-19
<223> Xaa = any amino acid

<400> 47
Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Cys
1 5 10 15
Xaa Xaa Xaa His
20

<210> 48
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence; note =
synthetic construct

<400> 48
Cys Cys Cys His
1